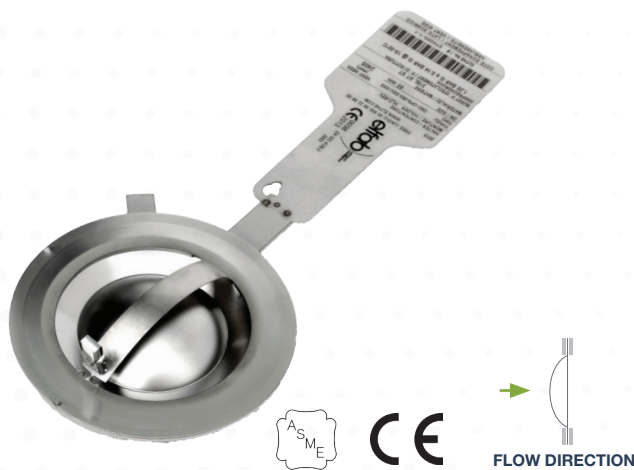


# OPTI-GARD SOLO

HIGH-PERFORMANCE LOW PRESSURE RUPTURE DISC

**Versatile, single disc solution offering precise bursting for a wide range of low pressure applications**



Opti-Gard SoLo is an innovative, low pressure rupture disc that works reliably even in demanding process conditions. Unlike many low-pressure discs, Opti-Gard SoLo features a low burst tolerance, high operating ratio and high cycling capability.

It achieves these capabilities by combining a patented geometric shape with state-of-the-art precision manufacturing. The result is a solid metal bursting disc that operates with great accuracy from pressures as low as 2 psig (0.13 barg).

We fit the Opti-Gard SoLo a magnet as standard so you can use it with our unique, reusable and non-invasive burst detection system Flo-Tel.

<b>Size</b>	1" - 6"
<b>Burst Pressure</b>	2 - 60 psig
<b>K<sub>R</sub> Value (K<sub>RGL</sub>)</b>	0.8
<b>Operating Ratio</b>	95% of minimum burst pressure
<b>Performance Tolerance</b>	+/- 1 psig ≤ 14 psig +/- 2 psig > 14 - ≤ 60 psig
<b>Manufacturing Range</b>	0%

**Let us help you with all your pressure relief questions.**

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Size range*	1"-6" (25-150mm)
Burst pressure range*	2 psig to 60 psig (0.14 barg to 4.14 barg)
Temperature range*	-94°F to 842°F (-70°C to 450°C)
Standard materials	Stainless Steel (others available on request)
K <sub>R</sub> Value	0.8
Max. Operating Ratio	95% of minimum burst pressure
Performance Tolerance**	+/- 1 psig ≤ 14 psig +/- 2 psig > 14 - ≤ 60 psig
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Can withstand full vacuum (14.7 psi) with vacuum support***
Fluid compatibility	Gas service, liquid service and gas-and-liquid service
Torque requirements	Not torque sensitive
Cycling or static service	Cycling service: Tested to over 100,000 pressure/vacuum cycles
Relief Valve Isolation	Suitable for safety relief valve isolation
Disc Surface Finish	Smooth surface on the process side to minimize product build-up
Design Standards	Designed to meet ISO 4126-2:2019 and PED 2014/68/EU

\*Sizes, burst pressures and temperatures outside of these ranges are available on request. Contact factory to discuss your requirements.

\*\* Minimum tolerance on gas-and-liquid applications is +/- 0.14 barg (2 psig).

\*\*\*At certain sizes and burst pressures. Contact factory for details.

## Certifications

ASME UD  
CE  
SIL

## Related Products

### Sensors

Flo-Tel  
Flo-Tel XD

### HOLDERS

Reverse holders

### Rupture Discs

Opti-Gard  
Opti-Gard (High-Strength Magnet)  
Opti-Gard Ferrule

# Burst Pressure Ranges

Opti-Gard SoLo Min/Max Burst Pressure @ 15-30°C (59-86°F)



SIZE		MATERIAL	Liquid-and-gas applications (with/without vacuum)*		Gas only applications (with vacuum)		Gas only applications (without vacuum)	
DN (mm)	inches		MIN barg (psig)	MAX barg (psig)	MIN barg (psig)	MAX barg (psig)	MIN barg (psig)	MAX barg (psig)
25	1	Hastelloy C 316 Stainless Steel	1.31 (19) 1.24 (18)	4.14 (60) 4.14 (60)	1.1 (16) 1.03 (15)	4.14 (60) 4.14 (60)	1.03 (15) 0.97 (14)	4.14 (60) 4.14 (60)
40	1.5	Hastelloy C 316 Stainless Steel	1.03 (15) 0.97 (14)	2.07 (30) 2.07 (30)	0.83 (12) 0.76 (11)	2.07 (30) 2.07 (30)	0.76 (11) 0.69 (10)	2.07 (30) 2.07 (30)
50	2	Hastelloy C 316 Stainless Steel	0.69 (10) 0.62 (9)	1.38 (20) 1.38 (20)	0.48 (7) 0.41 (6)	1.38 (20) 1.38 (20)	0.41 (6) 0.35 (5)	1.38 (20) 1.38 (20)
65	2.5	Hastelloy C 316 Stainless Steel	0.69 (10) 0.62 (9)	1.38 (20) 1.38 (20)	0.48 (7) 0.41 (6)	1.38 (20) 1.38 (20)	0.41 (6) 0.35 (5)	1.38 (20) 1.38 (20)
80	3	Hastelloy C 316 Stainless Steel	0.41 (6) 0.34 (5)	0.9 (13) 0.9 (13)	0.28 (4) 0.21 (3)	0.9 (13) 0.9 (13)	0.28 (4) 0.21 (3)	0.9 (13) 0.9 (13)
100	4	Hastelloy C 316 Stainless Steel	0.41 (6) 0.34 (5)	0.9 (13) 0.9 (13)	0.28 (4) 0.21 (3)	0.9 (13) 0.9 (13)	0.14 (2) 0.14 (2)	0.9 (13) 0.9 (13)
150	6	Hastelloy C 316 Stainless Steel	0.41 (6) 0.34 (5)	0.9 (13) 0.9 (13)	0.28 (4) 0.21 (3)	0.9 (13) 0.9 (13)	0.21 (3) 0.21 (3)	0.9 (13) 0.9 (13)

\*Values do not apply to liquid only applications - a gas cap must be present.  
Minimum tolerance on gas-and-liquid applications is +/- 0.14 barg (2 psig).

## Free Flow Area / Minimum Net Flow Area (MNFA)



NOMINAL BORE		MNFA with no vacuum support (XXX)		MNFA with non-opening vacuum support (NV?S)	
DN (mm)	inches	mm <sup>2</sup>	Sq. Inch	mm <sup>2</sup>	Sq. Inch
25	1	596	0.93	383	0.594
40	1.5	1,288	2.01	905	1.403
50	2	2,185	3.41	1,493	2.314
65	2.5	3,207	5	2,155	3.36
80	3	5,236	8.17	3,598	5.61
100	4	8,332	12.9	5,110	7.96
150	6	17,849	27.84	11,187	17.43

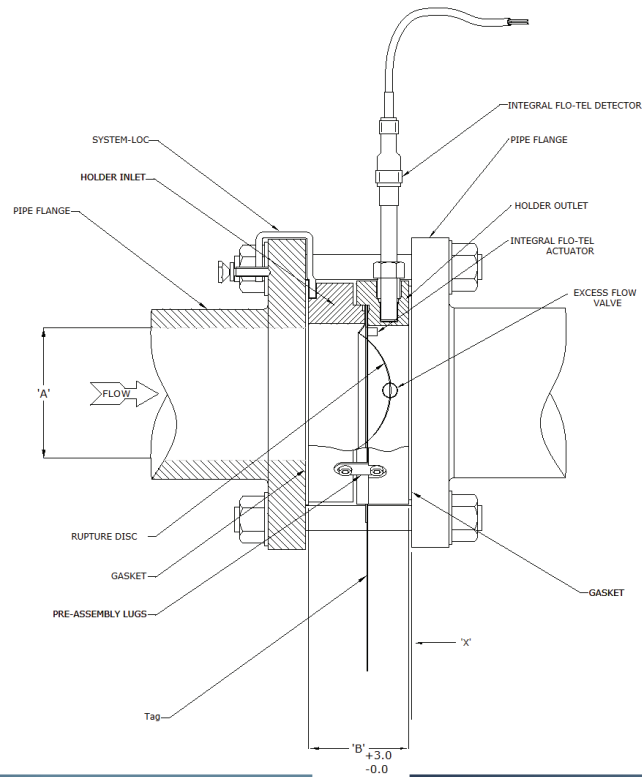
## Burst Tolerance

+/- 0.07 barg ≤ 0.97 barg  
+/- 0.14 barg > 0.97 - ≤ 4.14 barg

+/- 1 psig ≤ 14 psig  
+/- 2 psig > 14 - ≤ 60 psig

## K<sub>R</sub> Value (Frictional Loss Factor)

K <sub>R</sub>	Opti-Gard SoLo
K <sub>RGL</sub>	0.8



NOMINAL BORE (A)		FACE-TO-FACE (B)	
DN (mm)	inches	With dome protection (mm)	No dome protection (mm)
25	1	40.4 (Std)	-
40	1.5	42.4 (Std)	-
50	2	44.4 (Std)	-
65	2.5	50 (Std)	-
80	3	55 (Std)	-
100	4	58 (Std)	-
150	6	74.5 (Std)	-

Face-to-face dimensions account for the disc and holder assembly only. They do not account for gasket thickness.

FLANGE SPECIFICATIONS	
EN 1092-1 PN DESIGNATED	BS EN 1759-1 ANSI DESIGNATED
PN 6	ANSI 150
PN 10	ANSI 300
PN 16	ANSI 600
PN 20	ANSI 900
PN 25	ANSI 1500
PN 40	ANSI 2500
PN 50	-
PN 63	-
PN 100	-